Date: Tue, 20 Apr 93 13:16:27 PDT
From: Ham-Policy Mailing List and Newsgroup <ham-policy@ucsd.edu>
Errors-To: Ham-Policy-Errors@UCSD.Edu
Reply-To: Ham-Policy@UCSD.Edu
Precedence: Bulk
Subject: Ham-Policy Digest V93 #107
To: Ham-Policy

Ham-Policy Digest Tue, 20 Apr 93 Volume 93 : Issue 107

Today's Topics:

Send Replies or notes for publication to: <Ham-Policy@UCSD.Edu>
Send subscription requests to: <Ham-Policy-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Policy Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-policy".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 20 Apr 1993 15:27:49 GMT
From: ucsd.edu!brian@network.UCSD.EDU
Subject: 10meters (Give it to CB)
To: ham-policy@ucsd.edu

In article <1396@arrl.org> zlau@arrl.org (Zack Lau) writes:
>So, what *can* average amateurs build?

The mechanically-inclined hams: their operating bench
     - the rest use old banquet tables

The technically-inclined hams: repeaters, converters, preamps, etc.
     - The rest have problems soldering PL-259s

The politically-inclined hams: deeper and thicker rules and regs
     - The rest just wish they'd grow old and die

I could go on....

- Brian

Date: 19 Apr 93 23:32:21 EDT
From: usc!howland.reston.ans.net!zaphod.mps.ohio-state.edu!darwin.sura.net!udel!
news.intercon.com!psinntp!arrl.org@network.UCSD.EDU
Subject: 10meters (Give it to CB)
To: ham-policy@ucsd.edu

In rec.radio.amateur.policy, mswmod@nimbus.sage.unr.edu (stark) writes:
>
>The skip conditions were very well known then. In fact, there was almost
>no activity on 2 meters. Most of the nets etc were on 10. Very few could
>afford the cost of 2 meter gear. Home brewing up in those high freqs was
>just about more than the average ham could do. It would be like the
>average ham now trying to build something at say 10 gig.

Interesting. Maybe Gary is right and I *am* overestimating the
abilities of people on the net. I thought that if you could get
rid of all the tuning adjustments and machine shop work, average
hams could build it. I know Down East Microwave has been selling
10 GHz no-tune preamp kits for several years now. Maybe it is
the need for using a sharp knife to cut holes in the circuit
boards. :-).

I guess I shouldn't estimate how many amateurs could build a 10 GHz
ground plane.

So, what *can* average amateurs build?

Zack Lau KH6CP/1

Internet: zlau@arrl.org "Working" on 24 GHz SSB/CW gear
Operating Interests: 10 GHz CW/SSB/FM
US Mail: c/o ARRL Lab 80/40/20 CW
225 Main Street Station capability: QRP, 1.8 MHz to 10 GHz
Newington CT 06111 modes: CW/SSB/FM/packet
amtor/baudot
Phone (if you really have to): 203-666-1541

>
>I still think that the real reason for CB being on 11 meters is that
>there was a lot of equipment available. It all adds up to more dollars
>for a few.
>

>"Ron", KU7Y

Date: Tue, 20 Apr 93 16:18:00 GMT
From: usc!howland.reston.ans.net!usenet.ins.cwru.edu!agate!headwall.Stanford.EDU!
nntp.Stanford.EDU!umunhum!paulf@network.UCSD.EDU
Subject: CW = effective utilization?
To: ham-policy@ucsd.edu

In article <9304200226.AB04700@netmail.microsoft.com> a-kevinp@microsoft.COM
(Kevin Purcell, Rho) writes:
>Paul you should stop these bogus "CW is the most effecient mode in
>100Hz". We all know that if you slow down an FSK signal and use ARQ we
>would have a digital mode with machines on both ends being more
>reliable and having a higher throughput than human driven CW.

There's nothing "bogus" about the simple fact that all of the machine
generated digital modes take up five times the spectrum that CW does.
While it is true that with slow, low rate convolutional codes, you could
duplicate the functionality in the same bandwidth, I'm willing to bet that
such a system would be quite a bit more expensive than a keyer, and thus never
see widespread use.

--
-=Paul Flaherty, N9FZX | "Just name a hero, and I'll prove he's a bum."
->paulf@Stanford.EDU | -- Col. Gregory "Pappy" Boyington, USMC (ret)

Date: Tue, 20 Apr 1993 19:49:00 GMT
From: pa.dec.com!nntpd2.cxo.dec.com!nuts2u.enet.dec.com!little@decwrl.dec.com
Subject: CW = effective utilization?
To: ham-policy@ucsd.edu

paulf@umunhum.stanford.edu (Paul Flaherty) writes:

>In article <9304200226.AB04700@netmail.microsoft.com> a-kevinp@microsoft.COM
(Kevin Purcell, Rho) w>>Paul you should stop these bogus "CW is the most effecient
mode in
>>100Hz". We all know that if you slow down an FSK signal and use ARQ we
>>would have a digital mode with machines on both ends being more
>>reliable and having a higher throughput than human driven CW.
>

>There's nothing "bogus" about the simple fact that all of the machine
>generated digital modes take up five times the spectrum that CW does.
>While it is true that with slow, low rate convolutional codes, you could
>duplicate the functionality in the same bandwidth, I'm willing to bet that
>such a system would be quite a bit more expensive than a keyer, and thus never
>see widespread use.

Ah, but the current digital modes can also transfer much more information per unit time than CW can. Only 10-20% of the amateur population are extra class operators, so I'm guessing that the arithimetic mean keying speed is closer to 12-15 WPM or ~6-7 bits/second. The slowest digital mode is at least 45 bits/second or ~100 WPM. So an 8 fold improvement in information transfer at only a 5 fold increase in spectrum utilization sounds like a win to me. Throttle back the 45 bits/second to 10 bits/second and cut the spectrum requirements down by an equivalent amount and you're now getting twice the information through in roughly the same spectrum.

Is this realistic? Why not? I'd venture to guess that many more people can type faster than 13 WPM than can bang out code faster than 13 WPM. Will it cost quite a bit more than a keyer? Well lets see, many (most?) shacks now have computers. DSP boards are approaching the $100 dollar mark. Some shareware software to drive it all would add a few more dollars. So what's left to be quite a bit more expensive than a keyer?

Evolve or face extinction. Or are you balkanizing Darwin's law?

73,
Todd
N9MWB

Date: 20 Apr 93 16:44:28 GMT
From: usc!howland.reston.ans.net!newsserver.jvnc.net!netnews.upenn.edu!prijat!
cs.uofs.edu!bill@network.UCSD.EDU
Subject: CW = effective utilization?
To: ham-policy@ucsd.edu

In article <9304200226.AB04700@netmail.microsoft.com>, a-kevinp@microsoft.COM
(Kevin Purcell, Rho) writes:
|>
|> How about we do the amateur exams in Latin.
|>

Now there's the first practical suggestion I've seen come out of this whole debate. I'm all for it!!!

bill

--
Bill Gunshannon | "There are no evil thoughts, Mr. Reardon" Francisco
bill@cs.uofs.edu | said softly, "except one; the refusal to think."
University of Scranton |
Scranton, Pennsylvania | #include <std.disclaimer.h>

Date: 20 Apr 93 08:22:16 EDT
From: usc!zaphod.mps.ohio-state.edu!howland.reston.ans.net!bogus.sura.net!udel!
news.intercon.com!psinntp!arrl.org@network.UCSD.EDU
Subject: Just waiting the OFs out
To: ham-policy@ucsd.edu

In rec.radio.amateur.policy, gary@ke4zv.uucp (Gary Coffman) writes:
>
>...The IARU is a creature of the ARRL, ...

Really! I'll have to relate that to the IARU; they'll be SOME
surprised...

| | | Deputy Manager, Field Services, ARRL.
| |___| The ARRL Amateur Radio Emergency Service, the ARRL
| uck | |urder   National Traffic System, The Amateur Auxiliary to
------ | | the FCC's Field Operations Bureau, the ARRL
     KY1T   Field Organization and the ARRL Monitoring System.
----
lhurder@arrl.org   Prodigy - MGTS39A, BIX - ARRL,
   MCI Mail - RPALM, MCI Mail - "ARRL", America On Line - "ARRL HQ"
        Compuserve - 70007,3373 (ARRL HQ) -- Genie ARRL.HQ

Date: Tue, 20 Apr 93 14:57:34 +1000
From: munnari.oz.au!ariel.ucs.unimelb.EDU.AU!werple.apana.org.au!stock!
justin@uunet.uu.net
Subject: My thoughts...
To: ham-policy@ucsd.edu

bly@btree.uucp (Roger Bly) writes:

> In article <1qh5rfINNb4f@mojo.eng.umd.edu> chuck@eng.umd.edu (Chuck Harris -

> >In article <1993Apr13.184121.16519@btree.uucp> bly@btree.uucp (Roger Bly) wr
> >>I think that we should reallocate a big chunk of 10m to CB. And give them
> >>some VHF/UHF also. After all, the "waves" belong to the citizens.

More spectrum I agree with, but not the 10M band, propagation is to good.

> Well, according the "Purpose of Amateur Radio" as codified in part 97, the ha
> bands are not "citizen's bands". The amateur allocation's scope and purpose

That is what it says on paper, but take your scanner and listen to your
local 2M repeater, and you will see 2M is just like cb, but on a higher
level. (very little technical conversation, mostly chit chat.)

As for packet, that is an even bigger fraud of spectrum, their is no
"Experimentation" going on, just users taking advantage of the available
spectrum to setup their own personal or club packet bbs systems. The
computers are BOUGHT, the transmitters are BOUGHT, the antenna is BOUGHT
and the software is BOUGHT (or copyed) WHERE IS THE EXPERIMENTATION!

> Citizen's bands should be large radio parklands of spectrum set aside for
> general citizens to use without any content restrictions. This spectrum
> should serve for personal communications, personal business, and low-level
> broadcasting. Most importantly, this "parkland" should be available to

I'm not sure about 'Low level broadcasting', perhaps a section of your
proposed band could be set aside for that, as for personal & buisness,
they would need seperate area's as well. (In Australia we have a 40 Ch.
UHF CB service as well as HF 27 Mhz) and the private users are always
telling the buisness users 'Where to go'. But I still agree with your initial
principal.

> These proposed citizen's bands would not be anything like the 11m band we
> have today. It can be easily argued that the problems with that band have

How can you say that? Congestion is only 1 of a number of problems 11M
faces todays.

This conversation reminds me of an artical I saw a few years back, (can't
remember where) stating that the spectrum costs nothing to provide,
nothing to maintain (not policing, the other type), and it never wears
out. So why do governments use it as such a money making tool?
To buy 12.5Khz of spectrum in a built up city, can cost over A$1M, who
should I make the cheque out to "GOD" ?

Justin

- Who: Justin Fanning | Where: Victoria, AUSTRALIA -

- How: justin@stock.apana.org.au | Voice: +61 3 879-3474   -

-         Give your life to JESUS, or spend eternity in HELL   -
---

Date: Tue, 20 Apr 93 19:22:21 GMT
From: usc!howland.reston.ans.net!agate!headwall.Stanford.EDU!nntp.Stanford.EDU!
umunhum!paulf@network.UCSD.EDU
Subject: OO != Slow
To: ham-policy@ucsd.edu

In article <1993Apr20.054454.18770@nntpd2.cxo.dec.com> little@nuts2u.enet.dec.com
(nuts2u::little) writes:
>So is the associated principle then "require the most spectrally
>efficient use of our spectrum"? This doesn't sound right, or perhaps
>you are advocating eliminating all non-CW use of the bands? Also,
>what does "spectrally efficient" have to do with anything.

According to the text of the Communications Act of 1934, the FCC is charged
with maintaining the spectrum as a public resource. As part of that
maintenance, the Act also mandates that FCC take steps to ensure efficient use
of the spectrum.

The reason for this clause is purely economic. It will always be cheaper
to use more spectrum than less (spark -> cw, AM -> SSB, WFM -> NFM -> ACSB).
Thus market mechanisms result in the exact opposite of what is required, and
regulation is required.

>For that matter I don't seem to recall assembly language which provides
>abstraction causing a performance problem. To the contrary, it is
>pretty easy to show that a lack of abstraction can cause performance
>problems as the software engineer loses touch with the problem, i.e.
>can't see the forest for the trees.

Assembly language is not an abstraction, as the mapping of mnemonics to
instructions is one-to-one and onto. As I said, there are claimed benefits
for reuse and maintenance, but neither of those has significant performance
implications.

>I hope you are right! That tells me the majority are likely to have an
>interest in changing things. Nice thing about democracies, eh?

True, but 1) The majority of growth is occuring in the code capable
population, by a 2:1 margin over the "code free" licensees, and 2) technical
merit is never determined by popular vote.

>Why do you have so little regard for your fellow hams?

That one rates about a two on the Schmidling Memorial Ad Hom scale.

> Are amateurs
>unable to seek alternatives if the HF SSB segments are so overcrowded
>as you suggest? Must we treat them like little children and manage
>their playground for them?

In a word, yes. But in that regard, the Amateur Service is like every other;
no service has ever introduced a significant improvement in spectrum
utilization without intervention by the FCC. The principal reason for this
is economic, as outlined above.

>Also, what *is* the behavior on the 2m band in any major metropolitan
>area? Are you another "bash the no-coders, look what they've done to
>my band" ham?

No, I have never been a "bash the no-coders, look what they've done to my
band" ham; in fact, you will recall that I advocated eliminating the
code requirement for the tech license, both for introductory reasons, and
because the UHF (and in most places, VHF) spectrum is underutilized.

> Around the Chicago area the behavior is, well how shall I put it, slow.

Chicago, while having a fairly major metropolitan area (I know, I used to
work in Naperville), doesn't have the ham population density of say, LA,
New York, or the Bay Area. So the loading isn't comparable.

--
-=Paul Flaherty, N9FZX | "Just name a hero, and I'll prove he's a bum."
->paulf@Stanford.EDU | -- Col. Gregory "Pappy" Boyington, USMC (ret)

Date: Tue, 20 Apr 1993 17:42:41 GMT
From: usc!zaphod.mps.ohio-state.edu!uwm.edu!linac!newsaintmail@network.UCSD.EDU
To: ham-policy@ucsd.edu

References <RFM.93Apr14232311@urth.eng.sun.com>, <25144@ksr.com>,
<1993Apr19.233335.9157@stortek.com>p
Subject : Re: EME absolutely needs 1500 watts? (was Re: 1500 watts too much?)

In article <1993Apr19.233335.9157@stortek.com> georgen@stortek.com
(George Noyes x5698) writes:
>
>I agree that 100w is "possible" but until you try it, then you'll find

>out why the "possible" is in quotes! You really neeeeeeed as much power
>as you can muster with any kind of reasonable antenna! I think we should
>lobby for a 2.5 KW limit for us Moon Bouncers!
>
>de George, W1XE
>
>

George, with the luck I've been having hearing my own echoes since I
"revived" the array fromt he ravages of winter; I have to say 5 or 10K
would be more fruitful during these periods of high path degredation :*}
I'll be on for May 1st weekend.
                                                    Kermit W9XA
P.S. Havent heard W5UN in the past week. It sure was easy to aim at
the moon when the VLA was on...

Date: Tue, 20 Apr 1993 16:37:59 GMT
From: sdd.hp.com!spool.mu.edu!mixcom.com!mei.mon@network.UCSD.EDU
To: ham-policy@ucsd.edu

References <626@toontown.ColumbiaSC.NCR.COM>, <C5119v.5rv@fmsystm.ncoast.org>,
<930418.133623.7K4.rusnews.w165w@mooch.sbs.com>
Subject : Re: Just waiting the OFs out

In <930418.133623.7K4.rusnews.w165w@mooch.sbs.com> system@mooch.sbs.com
(Christopher Ogren) writes:

>I mean it's not like their theory test ws
>even remotely challenging. The thing is handed to them. Memorize the
>questions crap. The question pool should be made much larger inorder to
>prevent rote memoriztion of the answers. There are no-coders around
>here who couldn't tell me how to construct a dipole. Now that is truly
>sad. What's the point of an exam if you don't understand the question?

And just what does learning code have to do with dipole construction??

Fine: let's eliminate the code in favor of a more rigorous test on
both theory AND it's practical application to real-world 1990s-style
communication. If your so concerned about theory, would the elimination
of the code requirement in exchange for a non-multiple choice version of
the written exam be acceptable to you?

Regarding "no-coders around here who couldn't tell me how to construct
a dipole", there are "coders" around here, that couldn't tell me how
to construct spread-spectrum transceiver. Anyone can pick an area of expertise
and point to someone else who is ignorant of said area. Again, what does

electronic/digital/rf theory have to due with the code requirement??
Should not ONE be more important than the OTHER? Care to debate which
one is more important? ;-)

Kevin Jessup, N9SQB, EE and "no-code" tech!

Temporarily using our companies corporate account. Many other
individuals use it as well. Please state in any E-mail follow-ups
that the mail is intended for me so as to avoid confusion. Thanks.

Marquette Electronics, Inc. account information follows...

--
mei.mon@mixcom.com

Date: Tue, 20 Apr 93 16:44:32 GMT
From: usc!howland.reston.ans.net!agate!headwall.Stanford.EDU!nntp.Stanford.EDU!
umunhum!paulf@network.UCSD.EDU
To: ham-policy@ucsd.edu

References <1993Apr19.174801.27371@nntpd2.cxo.dec.com>,
<1993Apr19.231621.12745@leland.Stanford.EDU>, <1993Apr20.032014.15545@muug.mb.ca>
Subject : Re: OO != Slow

In article <1993Apr20.032014.15545@muug.mb.ca> bwalzer@muug.mb.ca (Bruce Walzer)
writes:
>Neat! Ok, 20 WPM works out to something like 20 baud with 10 bit characters.
>With FSK it wouldn't be to hard to fit that into something like 80 Hz. You'd
>use a DSP to demodulate. Just let the no-codes operate below 30 MHz with the
>restriction that they could not occupy more than lets say 100 Hz (they might
>want to add some error correction overhead and still get that "CW" thruput).

I'd find that quite acceptable (especially if such licensees were actually
required to show knowledge of such techniques), but I have a funny feeling
that others would not. You still need to show that the end result wouldn't
be an overcrowding of the SSB portions of the bands.

--
-=Paul Flaherty, N9FZX | "Just name a hero, and I'll prove he's a bum."
->paulf@Stanford.EDU | -- Col. Gregory "Pappy" Boyington, USMC (ret)

Date: Tue, 20 Apr 1993 17:59:53 GMT
From: usc!howland.reston.ans.net!bogus.sura.net!udel!gvls1!rossi@network.UCSD.EDU

To: ham-policy@ucsd.edu

References <C5119v.5rv@fmsystm.ncoast.org>,
<930418.133623.7K4.rusnews.w165w@mooch.sbs.com>,
<1993Apr20.163759.19443@mixcom.mixcom.com>
Subject : Re: Just waiting the OFs out

In article <1993Apr20.163759.19443@mixcom.mixcom.com> mei.mon
<mei.mon@mixcom.mixcom.com> writes:
>
>Regarding "no-coders around here who couldn't tell me how to construct
>a dipole", there are "coders" around here, that couldn't tell me how
>to construct spread-spectrum transceiver. Anyone can pick an area of expertise
>and point to someone else who is ignorant of said area. Again, what does
>electronic/digital/rf theory have to due with the code requirement??
>Should not ONE be more important than the OTHER? Care to debate which
>one is more important? ;-)

I have nothing against the NO CODE license but to often I get the impression
that somewhere there is this large pool of NO CODE hams who are supposed to
get their license and within 2 weeks are working MOONBOUNCE, SATELLITES,
SPREAD SPRETRUM, ATV, MICROWAVES, ETC ETC.. all these relatively "high tech"
modes.

If that is the case then they must have the money to just go out and buy
everything and this hobby is turning in bunch of "applicance operators"
much worse/faster than I thought.

Hey, most of the new hams I have met, NO CODEs, or whatever, didn't even
know how to install a PL-259 on the end of their coax... at first.   But
they learn just like everyone else.

==
Pete Rossi - WA3NNA   rossi@VFL.Paramax.COM

Paramax Systems Corporation - a Unisys Company
Valley Forge Engineering Center - Paoli, Pennsylvania
==

Date: 19 Apr 1993 19:01:12 GMT
From: topaz.bds.com!topaz.bds.com!ron@uunet.uu.net
To: ham-policy@ucsd.edu

References <wd6cmuC5Lpq3.DIz@netcom.com>,
<930418.180836.5U6.rusnews.w165w@mooch.sbs.com>,
<1993Apr19.161610.22423@ve6mgs.ampr.org>

Subject : Re: ARRL BULLETIN 32 ARLB032

> Well, isn't he the first forwarding station too? The paper trail points
> squarely!

I think the FCC idea of how packet forwarding works is that the end user
sits at a dump TNC terminal and connects over the air to a BBS system.
The BBS system would be the first forwarding system. For some reason
they've decided to hang this station as well.

-Ron

Date: Tue, 20 Apr 93 18:33:16 GMT
From: usc!howland.reston.ans.net!agate!headwall.Stanford.EDU!nntp.Stanford.EDU!
umunhum!paulf@network.UCSD.EDU
To: ham-policy@ucsd.edu

References <C5119v.5rv@fmsystm.ncoast.org>,
<930418.133623.7K4.rusnews.w165w@mooch.sbs.com>,
<1993Apr19.164322.23437@ke4zv.uucp>
Subject : Re: Just waiting the OFs out

In article <1993Apr19.164322.23437@ke4zv.uucp> gary@ke4zv.UUCP (Gary Coffman)
writes:
>In addition, an administration may take
>exception to these requirements by filing such at a WARC. Japan
>has done so, thus code free operators there may already use HF.

Well, not quite. Ever wonder about those Kenwood "V" models -- you know, the
ones with the 10W finals? Well, the reason those rigs exist is that the
codeless license in Japan limits the output power on the HF bands to 10w.
Somehow, I doubt that those proposing the elimination of the CW requirements
would accept similar limitations...

--
-=Paul Flaherty, N9FZX | "Just name a hero, and I'll prove he's a bum."
->paulf@Stanford.EDU | -- Col. Gregory "Pappy" Boyington, USMC (ret)

Date: Tue, 20 Apr 1993 16:38:10 GMT
From: usc!howland.reston.ans.net!bogus.sura.net!news-feed-1.peachnet.edu!umn.edu!
csus.edu!netcom.com!stevew@network.UCSD.EDU
To: ham-policy@ucsd.edu

References <734085538.F00003@ocitor.fidonet>, <wd6cmuC5Lpq3.DIz@netcom.com>,
<930418.180836.5U6.rusnews.w165w@mooch.sbs.com>
Subject : Re: ARRL BULLETIN 32 ARLB032

In article <930418.180836.5U6.rusnews.w165w@mooch.sbs.com>, system@mooch.sbs.com
(Christopher Ogren) writes:
> I am somewhat disappointed with how the auto-forwarding issue is being
> handled. It seems to me that the first forwarding station being held
> repsonsible for messages sent through his/her station is too cumbersome. I
> suppose it gives some persons comfort to think there is someone else to
> blame. Why not just make the person who edited the original message
> responsible for the content of his/her own email or bulletin?
>
> Christopher   system@mooch.sbs.com
>   nm1z@switch.w1cg-9.ampr.org
>   NM1Z @ KA1RCI.RI.USA.NA
>

First folks...don't put this particular problem at the foot of the
league..they don't particularly like it either...this is all the FCC's
idea.

Second..if you don't like it why not submit formal comments to FCC telling
them what a bonehead idea it is!

Steve KA6S

End of Ham-Policy Digest V93 #107
****